


[Subscribe \(Full Service\)](#) [Register \(Limited Service, Free\)](#) [Login](#)

 Search: ☒ The ACM Digital Library ☐ The Guide



THE ACM DIGITAL LIBRARY

[Feedback](#)

self organizing maps

 Terms used: [self organizing maps](#)

 Sort results by 
[Save results to a Binder](#)

 Refine these results with  
 Try this search in The /

 Display results 
☐ Open results in a new window

Results 1 - 20 of 1,542

 Result page: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [next](#) [>>](#)

### 1 [Organizing and visualizing software repositories using the growing hierarchical self-organizing map](#)



Songsri Tangsripairoj, M. H. Samadzadeh

March 2005 SAC '05: Proceedings of the 2005 ACM symposium on Applied computing

Publisher: ACM

 Full text available: [pdf\(109.35 KB\)](#)

 Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 9, Downloads (12 Months): 133, Citation Count: 1

A software repository, a place where reusable components are stored and searched for, is a key ingredient for instituting and popularizing software reuse. It is vital that a software repository should be well-organized and provide efficient tools for ...

Keyw ords: growing hierarchical self-organizing map, self-organizing map, software repository, software reuse

### 2 [The Geodesic Self-Organizing Map and its error analysis](#)

Yingxin Wu, Masahiro Takatsuka

January 2005 ACSC '05: Proceedings of the Twenty-eighth Australasian conference on

Computer Science - Volume 38, Volume 38

Publisher: Australian Computer Society, Inc.

 Full text available: [pdf\(530.40 KB\)](#)

 Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 4, Downloads (12 Months): 84, Citation Count: 2

The Self-Organizing Map (SOM) is one of the popular Artificial Neural Networks which is a useful clustering and visualizing complex high dimensional data. Conventional SOMs are based on the two-dimensional (2D) grid structure, which usually results ...

Keyw ords: error analysis, geodesic dome, self-organizing map, sphere tessellation

### 3 [Wireless localization using self-organizing maps](#)



Gianni Giorgetti, Sandeep K. S. Gupta, Gianfranco Manes

April 2007 IPSN '07: Proceedings of the 6th international conference on Information processing in sensor networks

Publisher: ACM

 Full text available: [pdf\(740.70 KB\)](#)

 Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 29, Downloads (12 Months): 388, Citation Count: 0

Localization is an essential service for many wireless sensor network applications. While several localization schemes rely on anchor nodes and range measurements to achieve fine-grained positioning, we propose a range-free, anchor-free solution that ...

Keyw ords: localization, self-organizing maps, wireless sensor networks

#### 4 [Application of self-organizing maps to clustering of high-frequency financial data](#)

Adam Blazejewski, Richard Coggins

January 2004 ACSW Frontiers '04: Proceedings of the second workshop on Australasian information security, Data Mining and Web Intelligence, and Software Internationalisation - Volume 32, Volume 32

Publisher: Australian Computer Society, Inc.


Full text available:  pdf(611.50 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 16, Downloads (12 Months): 124, Citation Count: 0

This paper analyzes the clustering of trades on the Australian Stock Exchange (ASX) with respect to the trade direction variable. The ASX is a limit order market operating an electronic limit order book. The order book consists of buy limit orders (bids) ...


Keyw ords: equities, high-frequency financial data, self-organizing map, trade clustering, trade direction

#### 5 [A Web text mining approach based on self-organizing map](#)

 Chung-Hong Lee, Hsin-Chang Yang

November 1999 WIDM '99: Proceedings of the 2nd international workshop on Web information and data management

Publisher: ACM

Full text available:  pdf(435.06 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 4, Downloads (12 Months): 38, Citation Count: 2

Web text mining is a new issue in the knowledge discovery research field. It is aimed to help people discover knowledge from large quantities of semi-structured or unstructured text in the web. Several approaches, including some pure ...


Keyw ords: document clustering, self-organizing map, text data mining

#### 6 [Mining rare and frequent events in multi-camera surveillance video using self-organizing maps](#)

 Valery A. Petrushin

August 2005 KDD '05: Proceedings of the eleventh ACM SIGKDD international conference on Knowledge discovery in data mining

Publisher: ACM

Full text available:  pdf(1.66 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 18, Downloads (12 Months): 133, Citation Count: 1

This paper describes a method for unsupervised classification of events in multi-camera indoors surveillance video. This research is a part of the Multiple Sensor Indoor Surveillance (MSIS) project which uses 32 AXIS-2100 webcams that observe an office ...

Keyw ords: indoor surveillance, rare event detection, self-organizing maps, unsupervised learning, visualization

## 7 [Rushes summarization with self-organizing maps](#)



Markus Koskela, Mats Sjöberg, Jorma Laaksonen, Ville Viitaniemi, Hannes Muurinen

September 2007 TVS '07: Proceedings of the international workshop on TRECVID video summarizat

Publisher: ACM

Full text available: [pdf\(267.52 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 9, Downloads (12 Months): 63, Citation Count: 0

In this paper, we describe our approach for video summarization that was applied to the BBC rushes material as part of the TRECVID 2007 evaluations. The method consists of initial shot boundary detection followed by shot similarity assessment and pruning, ...

Key words: self-organizing map, video summarization

## 8 [3D model metrieval based on volumetric extended gaussian image and hierarchical self organizing map](#)



Jiqi Zhang, Hau-San Wong, Zhiwen Yu

October 2006 MULTIMEDIA '06: Proceedings of the 14th annual ACM international conference on Multimedia

Publisher: ACM

Full text available: [pdf\(268.20 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 4, Downloads (12 Months): 75, Citation Count: 0

In this paper, we introduce a novel shape signature, called Volumetric Extended Gaussian Image (VEGI). It captures the volumetric distribution of a 3D mesh model along the latitude-longitude direction without conventional pose normalization and is translation ...

Key words: 3D model retrieval, hierarchical self organizing map, volumetric extended Gaussian image

## 9 [Discriminating and visualizing anomalies using negative selection and self-organizing map:](#)



Fabio A. González, Juan Carlos Galeano, Diego Alexander Rojas, Angélica Veloza-Suan

June 2005 GECCO '05: Proceedings of the 2005 conference on Genetic and evolutionary computat

Publisher: ACM

Full text available: [pdf\(231.58 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 2, Downloads (12 Months): 92, Citation Count: 1

An immune inspired model that can detect anomalies, even when trained only with normal samples, and can learn from encounters with new anomalies is presented. The model combines negative selection algorithm and a self-organizing map (SOM) in an immune ...

Key words: anomaly detection, anomaly visualization, artificial immune systems, negative selection, self-organizing maps

## 10 [Poisson-Based Self-Organizing Feature Maps and Hierarchical Clustering for Serial Analysis of Gene Expression Data](#)

Haiying Wang, Huiru Zheng, Francisco Azuaje

April 2007 IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB), Volume 4 Issue 2

Publisher: IEEE Computer Society Press

Full text available: [pdf\(4.75 MB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 12, Downloads (12 Months): 189, Citation Count: 0

Serial analysis of gene expression (SAGE) is a powerful technique for global gene expression profiling, allowing simultaneous analysis of thousands of transcripts without prior structural and functional knowledge. Pattern discovery and visualization ...

Keyw ords: Pattern discovery and visualization, self-organizing maps, hybrid machine learning, Poisson distribution, serial analysis of gene expression.

# 11 [Visualization of tonal content with self-organizing maps and self-similarity matrices](#)



Petri Toiviainen

October 2005 Computers in Entertainment (CI E), Volume 3 Issue 4

Publisher: ACM

Full text available: pdf(665.64 KB)

Additional Information: [full citation](#), [appendices and supplements](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 16, Downloads (12 Months): 181, Citation Count: 1

This article presents a dynamic model of tonality perception based on a short-term memory model and a self-organizing map (SOM). The model can be used for dynamic visualization of perceived tonal content, making it possible to examine the clarity and ...

Keyw ords: computational music cognition, harmonic analysis, music visualization, tonal analysis, tonality models

# 12 [Visualization tools for self-organizing maps](#)



Christopher C. Yang, Hsinchun Chen, K. K. Hong

August 1999 DL '99: Proceedings of the fourth ACM conference on Digital libraries

Publisher: ACM

Full text available: pdf(90.82 KB)

Additional Information: [full citation](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 20, Downloads (12 Months): 148, Citation Count: 3

Keyw ords: fisheye view, fractal view, information retrieval clustering, information visualization, self-organizing map, semantic interoperability

# 13 [Visualizing windows executable viruses using self-organizing maps](#)



InSeon Yoo

October 2004 VizSEC/ DMSEC '04: Proceedings of the 2004 ACM workshop on Visualization and data mining for computer security

Publisher: ACM

Full text available: pdf(571.27 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 4, Downloads (12 Months): 64, Citation Count: 0

This paper concentrates on visualizing computer viruses without using virus specific signature information as a prior stage of the very important problem of detecting computer viruses. In this paper, we address the fact that each viruses have its own ...

Keyw ords: self-organizing maps, visualization, windows executable viruses

# 14 [Integration of self-organizing maps with spatial indexing for efficient processing of multi-dimensional data](#)



M. Zaremba, L. St-Laurent, O. Niemann, D. Richardson

November 2000 GI S '00: Proceedings of the 8th ACM international symposium on Advances in

geographic information systems

Publisher: ACM

Full text available:  pdf(721.38 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 1, Downloads (12 Months): 72, Citation Count: 0

This paper investigates the integration of a class of adaptive soft-computing techniques and architectures with helical hyperspatial codes (HHCode) - indexing technology developed at Canadian Hydrographic Services - and their use in developing automated ...

Keywords: clustering methods, fuzzy logic, multi-dimensional indexing, multi-spectral data processing, self-organizing maps

# 15 [Visualizing customer segmentations produce by self organizing maps \(case study\)](#)

Holly Rushmeier, Richard Lawrence, George Almasi

October 1997 VIS '97: Proceedings of the 8th conference on Visualization '97

Publisher: IEEE Computer Society Press

Full text available:

 pdf(780.01 KB)  [Publisher Site](#)

Additional Information: [full citation](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 3, Downloads (12 Months): 43, Citation Count: 4

# 16 [Growing Hierarchical Self-Organizing Maps for Web Mining](#)

Joseph P. Herbert, JingTao Yao

November 2007 WI '07: Proceedings of the IEEE/WIC/ACM International Conference on Web Intelligence

Publisher: IEEE Computer Society

Full text available:  pdf(473.33 KB)

Additional Information: [full citation](#), [abstract](#)

Bibliometrics: Downloads (6 Weeks): 5, Downloads (12 Months): 35, Citation Count: 0

Many information retrieval and machine learning methods have not evolved in order to be applied to the Web. Two main problems in applying some machine learning techniques for Web mining are the dynamic and ever-changing nature of Web data and the sheer ...

# 17 [A context vector-based self organizing map for information visualization](#)

David A. Rushall, Marc R. Ilgen

May 1996 Proceedings of a workshop on held at Vienna, Virginia: May 6-8, 1996

Publisher: Association for Computational Linguistics


Full text available:  pdf(708.10 KB)

Additional Information: [full citation](#), [abstract](#), [references](#)

Bibliometrics: Downloads (6 Weeks): 1, Downloads (12 Months): 40, Citation Count: 0

HNC Software, Inc. has developed a system called DOCUVERSE for visualizing the information content of large textual corpora. The system is built around two separate neural network methodologies: context vectors and self organizing maps. Context vectors ...

# 18 [On the issue of neighborhood in self-organizing maps](#)

 Hua Yang, M. Palaniswami

April 1992 SAC '92: Proceedings of the 1992 ACM/SIGAPP Symposium on Applied computing: technological challenges of the 1990's

Publisher: ACM

Full text available:  pdf(413.12 KB)

Additional Information: [full citation](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 2, Downloads (12 Months): 40, Citation Count: 2

19 [Predictive modeling and planning of robot trajectories using the self-organizing map](#)

Guilherme A. Barreto, Aluizio F. R. Araújo

May 2004 I EA/ AI E'2004: Proceedings of the 17th international conference on Innovations in applied artificial intelligence

Publisher: Springer Springer Verlag Inc

Additional Information: [full citation](#), [abstract](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): n/a, Downloads (12 Months): n/a, Citation Count: 0

In this paper, we propose an unsupervised neural network for prediction and planning of complete robot trajectories. A general approach is developed which allows Kohonen's Self-Organizing Map (SOM) to approximate nonlinear input-output dynamical mappings ...

20 [Using self organizing maps and genetic algorithms for model selection in multilevel optimization](#)

Mohammed El-Beltagy, Andy Keane

June 1999 I EA/ AI E '99: Proceedings of the 12th international conference on Industrial and engineering applications of artificial intelligence and expert systems: multiple approaches to intelligent systems

Publisher: Springer-Verlag New York, Inc.

Additional Information: [full citation](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): n/a, Downloads (12 Months): n/a, Citation Count: 1

Results 1 - 20 of 1,542

Result page: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [next](#) [>>](#)

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2008 ACM,

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact Us](#)

Useful downloads:  [Adobe Acrobat](#)  [QuickTime](#)  [Windows Media Player](#)  [Real Player](#)